U.S. Patent Application Serial No. 10/708,685
Response to Non-Responsive Amendment and
Supplemental Amendment filed May 7, 2007
Reply to OA dated March 9, 2007

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Original): A map information processing device for delivering a map information over a network,

wherein the map information has: a display data including an element data for an element constituting a map of a predetermined area; and a matching data corresponding to the display data, including a plurality of point information that have coordinates information and unique point information and represent predetermined points, and a segment information that has a unique segment information and connects a pair of point information, the matching data representing a road by the point information and the segment information,

the map information processing device comprising:

a storage storing the map information and capable of storing an update-display data having an element data for a road other than the road represented by the matching data; and

a delivery section capable of delivering the map information and the update-display data and capable of delivering a signal indicating that there is no corresponding matching data when delivering the update-display data.

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Claim 2 (Previously Presented): A map information processing device for delivering a map information over a network,

wherein the map information has: a display data including an element data for an element constituting a map of a predetermined area; a matching data corresponding to the display data, including a plurality of point information that have coordinates information and unique point information and represent predetermined points, and a segment information that has a unique segment information and connects a pair of point information, the matching data representing a road by the point information and the segment information; and a display version information associated with the display data on revision status of the display data,

the map information processing device comprising:

a storage for storing the map information;

a version information recognizer for reading and recognizing the display version information stored in the storage; and

a delivery section for delivering the display data corresponding to the recognized display version information as an update-display data when it is determined that the display version information recognized by the version information recognizer is different from the display version information recognized previously,

wherein the storage stores a matching version information associated with the matching data on revision status of the matching data,

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wherein the version information recognizer reads and recognizes the matching version information stored in the storage,

wherein the delivery section delivers the matching data corresponding to the recognized matching version information from the storage when it is determined that the matching version information recognized by the version information recognizer is different from the matching version information recognized previously, and

wherein the version information recognizer reads and recognizes the matching version information after the delivery section delivers the display data.

Claim 3 (Canceled)

Claim 4 (Canceled)

Claim 5 (Original): The map information processing device according to claim 1,

wherein the storage stores a revision date information on a scheduled revision date of the matching data, and

wherein the delivery section sends the revision date information when delivering the display data.

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Claim 6 (Original): The map information processing device according to claim 2,

wherein the storage stores a revision date information on a scheduled revision date of the

matching data, and

wherein the delivery section sends the revision date information when delivering the display

data.

Claim 7 (Original): A map information processing device for acquiring a map information

over a network,

wherein the map information is stored in a storage and is provided with: a display data

including an element data for an element constituting a map of a predetermined area; and a matching

data corresponding to the display data, including a plurality of point information that have

coordinates information and unique point information and represent predetermined points, and a

segment information that has a unique segment information and connects a pair of point information,

the matching data representing a road by the point information and the segment information,

the map information processing device comprising:

a map information acquiring section for acquiring the display data and the matching data

from the storage; and

a determining section for determining whether the display data acquired by the map

information acquiring section is an update-display data having an element data for a road other than

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the road represented by the matching data and generates a signal indicating that there is no corresponding matching data when determining that the display data is the update-display data.

Claim 8 (Previously Presented): A map information processing device for acquiring a map information over a network,

wherein the map information is stored in a storage and is provided with: a display data including an element data for an element constituting a map of a predetermined area; a matching data corresponding to the display data, including a plurality of point information that have coordinates information and unique point information and represent predetermined points, and a segment information that has a unique segment information and connects a pair of point information, the matching data representing a road by the point information and the segment information; and a display version information associated with the display data on revision status of the display data,

the map information processing device comprising:

a version information recognizer for reading and recognizing the display version information stored in the storage over the network; and

a map information acquiring section for reading the display data corresponding to the recognized display version information as an update-display data from the storage over the network when it is determined that the display version information recognized by the version information recognizer is different from the display version information recognized previously,

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wherein the storage stores a matching version information associated with the matching data on revision status of the matching data,

wherein the version information recognizer reads and recognizes the matching version information stored in the storage,

wherein the map information acquiring section acquires the matching data corresponding to the recognized matching version information from the storage when it is determined that the matching version information recognized by the version information recognizer is different from the matching version information recognized previously, and

wherein the version information recognizer reads and recognizes the matching version information after the map information acquiring section acquires the display data.

Claim 9 (Canceled)

Claim 10 (Canceled)

Claim 11 (Original): The map information processing device according to claim 8,

wherein the storage stores a revision date information on a scheduled revision date of the matching data, and

wherein the map information acquiring section acquires the revision date information when

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acquiring the display data.

Claim 12 (Original): The map information processing device according to claim 11, further

comprising a time piece for clocking a current date,

wherein the map information acquiring section acquires a matching data representing a road

corresponding to an element data in the update-display data from the storage when determining that

the current date clocked by the time piece is the scheduled revision date in the revision date

information.

Claim 13 (Original): The map information processing device according to claim 11, further

comprising:

a time piece for clocking a current date; and

a display controller for changing a display form of an area corresponding to a newly added

element data by having a revision of the display data into a different display form in response to a

difference between the current date clocked by the time piece and the scheduled revision date in the

revision date information.

Claim 14 (Original): The map information processing device according to claim 1, wherein

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the update-display data has data structure in which an element data corresponding to a newly added area in a revision or an element data corresponding to a newly deleting area is displayed in a form different from a display form of an element data corresponding to an area in the previous display data.

Claim 15 (Original):   The map information processing device according to claim 2, wherein the update-display data has data structure in which an element data corresponding to a newly added area in a revision or an element data corresponding to a newly deleting area is displayed in a form different from a display form of an element data corresponding to an area in the previous display data.

Claim 16 (Original):   The map information processing device according to claim 7, wherein the update-display data has data structure in which an element data corresponding to a newly added area in a revision or an element data corresponding to a newly deleting area is displayed in a form different from a display form of an element data corresponding to an area in the previous display data.

Claim 17 (Original): The map information processing device according to claim 8, wherein the update-display data has data structure in which an element data corresponding to a newly added

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area in a revision or an element data corresponding to a newly deleting area is displayed in a form

different from a display form of an element data corresponding to an area in the previous display

data.

Claim 18 (Original): The map information processing device according to claim 8,

wherein the version information recognizer compares the display version information of the

display data and the matching version information of the matching data corresponding thereto to

determine whether the version information are identical,

the map information processing device further comprising a display controller for displaying

a revised area in the acquired display data on a display in a form different from a form in which the

previous display data is displayed on the display.

Claim 19 (Original): The map processing device according to claim 18, wherein when the

map information acquiring section acquires the matching data, the display controller changes the

display form of the display data into a same display form of the previous display data according to

the matching data.

Claim 20 (Original): A map information processing system comprising:

a map information processing device for delivering a map information over a network,

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wherein the map information has: a display data including an element data for an element

constituting a map of a predetermined area; and a matching data corresponding to the display data,

including a plurality of point information that have coordinates information and unique point

information and represent predetermined points, and a segment information that has a unique

segment information and connects a pair of point information, the matching data representing a road

by the point information and the segment information, the map information processing device

comprising: a storage storing the map information and capable of storing an update-display data

having an element data for a road other than the road represented by the matching data; and a

delivery section capable of delivering the map information and the update-display data and capable

of delivering a signal indicating that there is no corresponding matching data when delivering the

update-display data; and

a terminal unit being connected to the map information processing device over the network

in a manner capable of acquiring the map information.

Claim 21 (Previously Presented): A map information processing system comprising:

a map information processing device for delivering a map information over a network,

wherein the map information has: a display data including an element data for an element

constituting a map of a predetermined area; a matching data corresponding to the display data,

including a plurality of point information that have coordinates information and unique point

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information and represent predetermined points, and a segment information that has a unique

segment information and connects a pair of point information, the matching data representing a road

by the point information and the segment information; and a display version information associated

with the display data on revision status of the display data, the map information processing device

comprising: a storage for storing the map information; a version information recognizer for reading

and recognizing the display version information stored in the storage; and a delivery section for

delivering the display data corresponding to the recognized display version information as an update-

display data when it is determined that the display version information recognized by the version

information recognizer is different from the display version information recognized previously; and

a terminal unit being connected to the map information processing device over the network

in a manner capable of acquiring the map information,

wherein the storage stores a matching version information associated with the matching data

on revision status of the matching data,

wherein the version information recognizer reads and recognizes the matching version

information stored in the storage,

wherein the delivery section delivers the matching data corresponding to the recognized

matching version information from the storage when it is determined that the matching version

information recognized by the version information recognizer is different from the matching version

information recognized previously, and

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wherein the version information recognizer reads and recognizes the matching version

information after the delivery section delivers the display data.

Claim 22 (Currently Amended):   A map information processing system comprising:

a map information processing device for delivering a map information over a network,

wherein the map information has: a display data including an element data for an element

constituting a map of a predetermined area; a matching data corresponding to the display data,

including a plurality of point information that have coordinates information and unique point

information and represent predetermined points, and a segment information that has a unique

segment information and connects a pair of point information, the matching data representing a road

by the point information and the segment information; and a display version information associated

with the display data on revision status of the display data, the map information processing device

comprising: a storage for storing the map information; a version information recognizer for reading

and recognizing the display version information stored in the storage; and a delivery section for

delivering the display data corresponding to the recognized display version information as an update-

display data when it is determined that the display version information recognized by the version

information recognizer is different from the display version information recognized previously; and

a terminal unit being connected to the map information processing device over the network

in a manner capable of acquiring the map information, the terminal unit including a terminal storage

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storing the acquired map information,

wherein, in the map information processing device, the version information recognizer

recognizes a display version information of the map information stored in the storage of the terminal

unit, the delivery section delivers the display data corresponding to the display version information

stored in the storage to the terminal unit when the recognized display version information is different

from the recognized display version information read from the storage, and

wherein the version information recognizer reads and recognizes the matching version

information after the delivery section delivers the display data.

Claim 23 (Original): A map information processing system comprising:

a map information processing device for acquiring a map information over a network,

wherein the map information is stored in a storage and is provided with: a display data including an

element data for an element constituting a map of a predetermined area; and a matching data

corresponding to the display data, including a plurality of point information that have coordinates

information and unique point information and represent predetermined points, and a segment

information that has a unique segment information and connects a pair of point information, the

matching data representing a road by the point information and the segment information, the map

information processing device comprising: a map information acquiring section for acquiring the

display data and the matching data from the storage; and a determining section for determining

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whether the display data acquired by the map information acquiring section is an update-display data

having an element data for a road other than the road represented by the matching data and generates

a signal indicating that there is no corresponding matching data when determining that the display

data is the update-display data; and

a server unit to which the map information processing device is connected over the network

in a manner capable of acquiring the map information, the server unit including a storage for storing

the map information.

Claim 24 (Previously Presented): A map information processing system comprising:

a map information processing device for acquiring a map information over a network,

wherein the map information is stored in a storage and is provided with: a display data including an

element data for an element constituting a map of a predetermined area; a matching data

corresponding to the display data, including a plurality of point information that have coordinates

information and unique point information and represent predetermined points, and a segment

information that has a unique segment information and connects a pair of point information, the

matching data representing a road by the point information and the segment information; and a

display version information associated with the display data on revision status of the display data,

the map information processing device comprising: a version information recognizer for reading and

recognizing the display version information stored in the storage over the network; and a map

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information acquiring section for reading the display data corresponding to the recognized display version information as an update-display data from the storage over the network when it is determined that the display version information recognized by the version information recognizer is different from the display version information recognized previously; and

a server unit to which the map information processing device is connected over the network in a manner capable of acquiring the map information, the server unit including a storage for storing the map information,

wherein the storage stores a matching version information associated with the matching data on revision status of the matching data,

wherein the version information recognizer reads and recognizes the matching version information stored in the storage,

wherein the map information acquiring section acquires the matching data corresponding to the recognized matching version information from the storage when it is determined that the matching version information recognized by the version information recognizer is different from the matching version information recognized previously, and

wherein the version information recognizer reads and recognizes the matching version information after the map information acquiring section acquires the display data.

Claim 25 (Original): A map information processing system according to claim 23, wherein

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the map information processing device acquires an update-display data when electric power is

supplied.

Claim 26 (Original):   A map information processing system according to claim 24, wherein

the map information processing device acquires an update-display data when electric power is

supplied.

Claim 27 (Original):   The map information processing system according to claim 23,

wherein the server unit including a travel route search section for searching for a travel route

using the map information based on a current position information on a current position and a

destination information on a destination, and

wherein the map information processing device includes a current position information

acquiring section for acquiring a current position information on a current position and a destination

information acquiring section for acquiring a destination information on a destination and acquires

the update-display data when the travel route search section searches for the travel route.

Claim 28 (Original):   The map information processing system according to claim 24,

wherein the server unit including a travel route search section for searching for a travel route

using the map information based on a current position information on a current position and a

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destination information on a destination, and

wherein the map information processing device includes a current position information

acquiring section for acquiring a current position information on a current position and a destination

information acquiring section for acquiring a destination information on a destination and acquires

the update-display data when the travel route search section searches for the travel route.

Claim 29 (Original): A map information processing method for delivering a map

information by a computing section over a network,

wherein the map information has: a display data including an element data for an element

constituting a map of a predetermined area; and a matching data corresponding to the display data,

including a plurality of point information that have coordinates information and unique point

information and represent predetermined points, and segment information that have unique segment

information and connect a pair of point information, the matching data representing a road by the

point information and the segment information, and

wherein the computing section delivers a signal indicating that there is no corresponding

matching data when delivering an update-display information having an element data for a road other

than the road represented by the matching data.

Claim 30 (Previously Presented): A map information processing method for delivering a

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map information by a computing section over a network,

wherein the map information is stored in a storage and is provided with: a display data including an element data for an element constituting a map of a predetermined area; a matching data corresponding to the display data, including a plurality of point information that have coordinates information and unique point information and represent predetermined points, and a segment information that has a unique segment information and connects a pair of point information, the matching data representing a road by the point information and the segment information; and a version information associated with the display data on revision status of the display data, and

wherein the computing section reads and recognizes the version information and delivers the display data corresponding to the version information as an updated data from the storage when the recognized version information is different from the previous version information,

wherein the storage stores a matching version information associated with the matching data on revision status of the matching data,

wherein the version information recognizer reads and recognizes the matching version information stored in the storage,

wherein the delivery section delivers the matching data corresponding to the recognized matching version information from the storage when it is determined that the matching version information recognized by the version information recognizer is different from the matching version information recognized previously, and

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wherein the version information recognizer reads and recognizes the matching version information after the delivery section delivers the display data.

Claim 31 (Previously Presented):   A map information processing method for delivering a map information by a computing section over a network,

wherein the map information is stored in a storage and is provided with: a display data including an element data for an element constituting a map of a predetermined area; and a matching data corresponding to the display data, including a plurality of point information that have coordinates information and unique point information and represent predetermined points, and a segment information that has a unique segment information and connects a pair of point information, the matching data representing a road by the point information and the segment information, and

wherein the computing section determines whether the acquired display data is an update-display data having an element data for a road other than the road represented by the matching data and generates a signal indicating that there is no corresponding matching data when determining that the display data is the update-display data.

Claim 32 (Canceled)

Claim 33 (Original):   A map information processing program executing, by a computing

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section, a map information processing method for delivering a map information by the computing

section over a network,

wherein the map information has: a display data including an element data for an element

constituting a map of a predetermined area; and a matching data corresponding to the display data,

including a plurality of point information that have coordinates information and unique point

information and represent predetermined points, and segment information that have unique segment

information and connect a pair of point information, the matching data representing a road by the

point information and the segment information, and

wherein the computing section delivers a signal indicating that there is no corresponding

matching data when delivering an update-display information having an element data for a road other

than the road represented by the matching data.

Claim 34 (Previously Presented): A map information processing program executing, by a

computing section, a map information processing method for delivering a map information by the

computing section over a network,

wherein the map information is stored in a storage and is provided with: a display data

including an element data for an element constituting a map of a predetermined area; a matching data

corresponding to the display data, including a plurality of point information that have coordinates

information and unique point information and represent predetermined points, and a segment

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information that has a unique segment information and connects a pair of point information, the matching data representing a road by the point information and the segment information; and a version information associated with the display data on revision status of the display data, and

wherein the computing section reads and recognizes the version information and delivers the display data corresponding to the version information as an updated data from the storage when the recognized version information is different from the previous version information,

wherein the storage stores a matching version information associated with the matching data on revision status of the matching data,

wherein the version information recognizer reads and recognizes the matching version information stored in the storage,

wherein the delivery section delivers the matching data corresponding to the recognized matching version information from the storage when it is determined that the matching version information recognized by the version information recognizer is different from the matching version information recognized previously, and

wherein the version information recognizer reads and recognizes the matching version information after the delivery section delivers the display data.

Claim 35 (Previously Presented): A map information processing program executing, by a computing section, a map information processing method for delivering a map information by the

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computing section over a network,

wherein the map information is stored in a storage and is provided with: a display data including an element data for an element constituting a map of a predetermined area; and a matching data corresponding to the display data, including a plurality of point information that have coordinates information and unique point information and represent predetermined points, and a segment information that has a unique segment information and connects a pair of point information, the matching data representing a road by the point information and the segment information, and

wherein the computing section determines whether acquired display data is an update-display data having an element data for a road other than the road represented by the matching data and generates a signal indicating that there is no corresponding matching data when determining that the display data is the update-display data.

Claim 36 (Canceled)

Claim 37 (Original):   A recording medium storing, in a manner readable by a computing section, a map information processing program executing a map information processing method for delivering a map information by the computing section over a network,

wherein the map information has: a display data including an element data for an element constituting a map of a predetermined area; and a matching data corresponding to the display data,

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including a plurality of point information that have coordinates information and unique point

information and represent predetermined points, and segment information that have unique segment

information and connect a pair of point information, the matching data representing a road by the

point information and the segment information, and

wherein the computing section delivers a signal indicating that there is no corresponding

matching data when delivering an update-display information having an element data for a road other

than the road represented by the matching data.

Claim 38 (Currently Amended):   A recording medium storing, in a manner readable by a

computing section, a map information processing program executing a map information processing

method for delivering a map information by the computing section over a network,

wherein the map information is stored in a storage and is provided with: a display data

including an element data for an element constituting a map of a predetermined area; a matching data

corresponding to the display data, including a plurality of point information that have coordinates

information and unique point information and represent predetermined points, and a segment

information that has a unique segment information and connects a pair of point information, the

matching data representing a road by the point information and the segment information; and a

version information associated with the display data on revision status of the display data, and

wherein the computing section reads and recognizes the version information and delivers the

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display data corresponding to the version information as an updated data from the storage when the

recognized version information is different from the previous version information,

wherein the storage stores a matching version information associated with the matching data

on revision status of the matching data,

wherein a version information recognizer reads and recognizes the matching version

information stored in the storage, and

wherein a delivery section delivers the matching data corresponding to the recognized

matching version information from the storage when it is determined that the matching version

information recognized by the version information recognizer is different from the matching version

information recognized previously, and

wherein the version information recognizer reads and recognizes the matching version

information after the delivery section delivers the display data.

Claim 39 (Previously Presented): A recording medium storing, in a manner readable by a

computing section, a map information processing program executing a map information processing

method for delivering a map information by the computing section over a network,

wherein the map information is stored in a storage and is provided with: a display data

including an element data for an element constituting a map of a predetermined area; and a matching

data corresponding to the display data, including a plurality of point information that have

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coordinates information and unique point information and represent predetermined points, and a

segment information that has a unique segment information and connects a pair of point information,

the matching data representing a road by the point information and the segment information, and

wherein the computing section determines whether the acquired display data is an update-

display data having an element data for a road other than the road represented by the matching data

and generates a signal indicating that there is no corresponding matching data when determining that

the display data is the update-display data.

Claim 40 (Canceled)